



Safety

AFWA OPERATIONAL RISK MANAGEMENT

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This pamphlet explains basic philosophy of AFWA Operational Risk Management. It applies to all AFWA personnel.

Section A—Introduction

1. Introduction: Risk management is a common sense way of accomplishing the mission, or any task, with the least risk possible. It is a method of getting the job done by identifying areas that present the highest risk and taking action to eliminate, reduce, or control the risk. Risk management is extremely flexible and can range from a process taking only a few moments to a more expanded one taking several hours or days. Whenever possible, risk management should be fully integrated into support, mission planning, and execution.

1.1. Risk management is a proactive tool to help make sound, informed decisions to keep our forces a step ahead and fully functional in an ever changing world. Though each person or organization may be faced with different risks, each should have a common risk management perspective. Use this Risk Management Pamphlet to assist in developing and implementing a risk management awareness program tailored to your unit mission.

1.2. Please help us to ensure that all personnel are made aware of the principles of risk management by conducting initial awareness briefings for personnel who are new to the unit, and also by integrating recurring risk management briefings into unit activities. Risk management awareness training should be documented on an AF Form 55, AFORMS, CAMS, etc. While the medium used to document the training is flexible, the need for both initial awareness training and recurring training cannot be overemphasized. Units should use safety days, commander's calls, or similar unit functions to address the principles of risk management and their application to the mission. Any questions/comments or requests for assistance should be directed to your unit safety POC.

1.3. An overview of Risk Management is shown in **Figure 1.** through **Figure 5.**

Figure 1. Benefits of Risk Management.

Resource Protection	People and equipment.
Enhanced Training	Improve ability to detect and control hazards and identify overly restrictive risk controls.
Combat Effectiveness	Better able to apply it in combat if risk management is applied and analyzed in training.
Improved Support to Operational Forces	Better allocation of scarce resources (money, people, material) to maximize combat capability.

Figure 2. Some Causes of Risk. Causes of Risk--AFWA personnel have seen them all:

Change, Environmental influences
Resource constraints, Human nature
New technology, High tempo of operation
Complexity, High energy levels
Stress, Inaccurate information
Insufficient planning

Figure 3. Levels of Risk Management.

Formal	Generally as in-depth as time allows; happens in Crisis Action Team (CAT) meetings, mission briefs, system requirements definition, etc.
Informal	Required as conditions change, as risk management is a continuous process. Also, can be used for assessing risks on each task, on or off duty.

Figure 4. Principles of Risk Management.

- Accept no unnecessary risks.
- Make risk decisions at the proper level.
- Accept risks if benefits outweigh the costs.

Figure 5. Pillars of Risk Management.

- Identify the Hazards
- Assess the Harzards
- Make a Risk Decision
- Implement Controls
- Supervise

Section B—Five Pillars of Risk Management

2. Identify the Hazards. Everyone should be involved in finding potential stumbling blocks and informing their supervisors. Risk identification is the basis of every mission effort. The following items are available to assist in identifying hazards:

- 2.1. Experience/training/judgment/intuition.**
- 2.2. Regulations/standards/procedures/checklists/OIs/TOs.**
- 2.3. Inspections/surveys/reports/evaluations** (formal and informal):
 - 2.3.1. Crossfeed/crosstell
 - 2.3.2. Safety reports
 - 2.3.3. Staff assistance visits
 - 2.3.4. Weather
 - 2.3.5. Intelligence
 - 2.3.6. Trend analysis
 - 2.3.7. Hazard reports/hazardous air traffic reports
 - 2.3.8. Quality Air Force assessments
 - 2.3.9. Statistics
 - 2.3.10. Bioenvironmental reports
 - 2.3.11. Site surveys
 - 2.3.12. Open source material
- 2.4. Lessons learned:**
 - 2.4.1. After-action reports
 - 2.4.2. Accident investigation/mishap reports/medical reports
 - 2.4.3. Thorough analysis of rehearsal
- 2.5. Warning devices/placards/red tags.**
- 2.6. Abnormal situations/break in routine.**
- 2.7. Close calls.**
- 2.8. Scenario thinking:**
 - 2.8.1. What can go wrong/what ifs
 - 2.8.2. Worst case option development
- 2.9. Quality assurance/standardization/evaluation.**
- 2.10. Experts--safety, maintenance, technical, specialized (e.g., intel).**

3. Assess the Hazards:

3.1. **Use sound concepts to detect hazards** and estimate the risk they pose. Everyone in the command must be committed to actively identify and report the hazards to supervisors who will then assess them relative to the mission or task at hand.

3.2. **Risk assessment is weighing the hazards** and their cumulative effect on potential for mission success in a common sense way to minimize exposing our forces to unnecessary risk. Your most critical tasks in risk assessment are stepping back, asking the right questions, and fully evaluating the risk.

3.3. **Put the previously identified hazards** into the context of the mission. Thoroughly review the expected sequence of events and the hazards associated with each step of the operation. Review standards for the operation. Use experience and judgment to consider the root causes of the hazards.

3.4. **Several factors** should be considered by AFWA personnel to assess the risk, including:

- 3.4.1. Level of activity/tempo
- 3.4.2. Inherent dangers of equipment
- 3.4.3. Operational working and living conditions
- 3.4.4. Personnel/organizational proficiency and qualifications/experience
- 3.4.5. Weather
- 3.4.6. Condition of personnel
- 3.4.7. Adequacy of operating location
- 3.4.8. Accident frequency
- 3.4.9. Hazardous materials used
- 3.4.10. Environmental concerns
- 3.4.11. Supervision
- 3.4.12. Complexity of mission, operation, or task
- 3.4.13. Level and adequacy of planning guidance and preparation
- 3.4.14. Availability of protective equipment
- 3.4.15. Initial or continuing mission

3.5. **This step ends with** a mission/operational risk assessment that describes the overall impact of the combined hazards. The result is a statement that quantifies the risk associated with the operation.
NOTE: Assessments can be qualitative (subjective) or quantitative (numerical probability).

4. Make a Risk Decision. Key elements of the risk management process are as follows:

4.1. **Every leader in AFWA** is expected to weigh the assessed risks against the potential benefits and then make a risk decision to continue the operation, change it, or cancel it. In other words, every special operator must proactively make risk decisions rather than be overcome by events or a desire to accomplish the mission regardless of the risk assessment and without a specific risk decision.

4.2. **Select options that produce** the best possible outcome, considering safety, mission, and resources.

4.3. **How great a risk in training** are we willing to accept to provide the airman with the skills that he or she may never be called upon to use in combat?

4.4. **Risk decision options** ask questions:

- 4.4.1. Accept risk?
- 4.4.2. Compare the risk to mission expectations.
- 4.4.3. Is the risk justified?
- 4.4.4. Is there unnecessary risk?
- 4.4.5. Require more information?
- 4.4.6. Reject risk?
- 4.4.7. Elevate to higher authority? Know waiver authorities.
- 4.4.8. Make decisions as early as possible in mission planning.
- 4.4.9. Make risk decision data easily understandable to all.
- 4.4.10. Make risk decisions a routine part of decision-making process.
- 4.4.11. Risk decisions are made at a level of command that corresponds to the degree of risk. Commanders should establish guidance as to who makes which risk decisions.

5. **Implement Controls.** Establish controls to minimize hazards developed as a result of steps 1 through 3. Weigh potential effectiveness of controls against risks involved. Reduce the probability and/or severity of hazardous event. Examples of possible controls include:

- 5.1. **Limit exposure** (people/time) consistent with mission needs.
- 5.2. **Selection of personnel** (mental, emotional, physical capability).
- 5.3. **Train and educate :**
 - 5.3.1. More realistic training for potential hazards.
 - 5.3.2. Involves judgment on acceptable training risks.
- 5.4. **Warn** (signs, color coding, audio/visual alarms).
- 5.5. **Motivate** (job standards, positive/negative incentives, rescue/emergency procedures, damage control plan).
- 5.6. **Increased and/or more highly qualified/experienced supervision.**
- 5.7. **Protective equipment/clothing/safety devices.**
- 5.8. **Incorporate fail-safe/firm go/no-go criteria.**
- 5.9. **New policy--formal/informal, written/unwritten.**

NOTE: Controls may be as substantial as writing an operational instruction or as simple as conducting a short safety briefing. They are situationally dependent.

6. **Supervise.** To ensure the effectiveness of controls:

6.1. Goes beyond ensuring that people do what is expected of them.

6.2. Includes follow-up during and after an action:

- 6.2.1. After-action reports--review prior to deployment
- 6.2.2. Lessons learned--review similar exercise before deploy
- 6.2.3. Debriefs
- 6.2.4. Procedural/regulation/policy changes
- 6.2.5. Disseminate information

6.3. Adjust.

6.4. Reevaluate.

Section C—Risk Management Responsibilities

7. Risk Management Responsibilities:

7.1. Commanders. As in all other areas, commanders are responsible for the effective management of risk. To meet this responsibility, commanders:

- 7.1.1. Seek optimum, not just adequate, performance.
- 7.1.2. Select from risk reduction options provided by the staff.
- 7.1.3. Accept or reject residual risk based on the benefit to be derived.
- 7.1.4. Balance what is wanted versus what is needed, what is enough?
- 7.1.5. Train and motivate leaders at all levels to effectively use risk management concepts.

7.2. Staff:

- 7.2.1. Assists the commander in assessing risks and in developing risk reduction options.
- 7.2.2. Integrates risk controls into plans and orders.
- 7.2.3. Eliminates unnecessary safety restrictions that diminish training or operational effectiveness.

7.3. Supervisors. (Responsibility rests with the first level supervisor to implement risk management training.):

- 7.3.1. Develop a total commitment to mission accomplishment and the welfare of subordinates.
- 7.3.2. Consistently apply effective risk management concepts and methods to operations/tasks they lead or supervise.
- 7.3.3. Report risk issues beyond their control or authority to their superiors for resolution, with suggested solutions for consideration.

7.4. Individuals:

- 7.4.1. Identify hazards/risks to supervisor.
- 7.4.2. Understand, accept, and implement risk reduction guidance.

- 7.4.3. Offer suggestions for enhanced risk reduction.
- 7.4.4. Maintain a constant awareness of the changing risks associated with the operation/task.
- 7.4.5. Make leaders/supervisors immediately aware of any unrealistic risk reduction procedure.

Section D—Conclusion

8. The risk management process is a proactive tool which can help our personnel make sound decisions in carrying out our mission and daily tasks. Used in a positive command climate, risk management can become the mind set which productively supports our strategic goal to "**Eliminate command mishaps to maximize mission success.**"

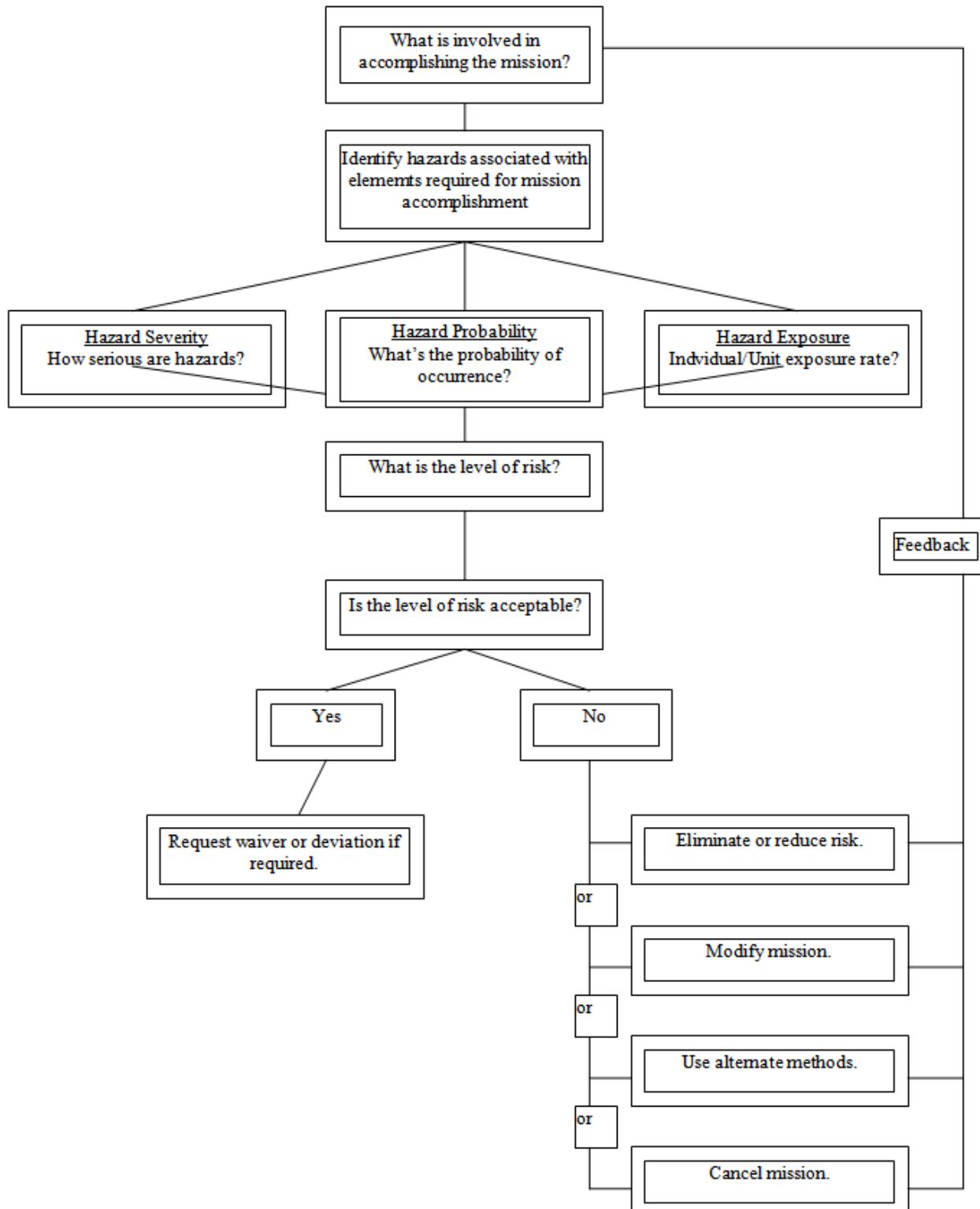
Section E—Training Aids

9. Risk Assessment Flow Chart. See [Attachment 1](#).

10. Risk Assessment Matrix. See [Attachment 2](#).

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Inspector General and Director of Safety

Attachment 1
RISK ASSESSMENT FLOW CHART



Attachment 2**EXAMPLE RISK FACTORS****PLANNING**

Guidance	Preparation		
	In-depth	Adequate	Minimal
Vague	3	4	5
General	2	3	4
Specific	1	2	3

HUMAN FACTORS

Living Conditions	Duty Cycle		
	Normal	Extended	Maximum
Field	3	4	5
Hard Billets	2	3	4
Home Station	1	2	3

CLIMATE

Protection	Conditions		
	Good	Moderate	Severe
None	3	4	5
Partial	2	3	4
Full	1	2	3

COMPLEXITY

Command & Control	Operation		
	Simple	Routine	Complex
Joint	3	4	5
Bilat	2	3	4
Unilat	1	2	3

EXAMPLE RISK FACTORS

PERSONNEL

Supervisors	Subordinate		
	Highly Qualified	Qualified	Need Training
Inexperienced	3	4	5
Experienced	2	3	4
Highly Experienced	1	2	3

OPS TEMPO

Generation	Utilization Rate		
	Low	Medium	High
Maximum	3	4	5
Normal	2	3	4
Minimum	1	2	3

OPERATING LOCATION

Support	Facilities		
	Optimal	Adequate	Minimal
None	3	4	5
Partial	2	3	4
Full	1	2	3

RISK GAUGE

7 14 21 28 35

VALUE			
Green	Yellow	Red	
Low Risk	Low Caution	High Caution	High Risk

* THE PURPOSE OF THIS ASSESSMENT IS NOT SIMPLY TO ASSIGN NUMBERS BUT TO HELP IDENTIFY MISSION RISKS AND NECESSARY/AVAILABLE RISK CONTROL MEASURES.